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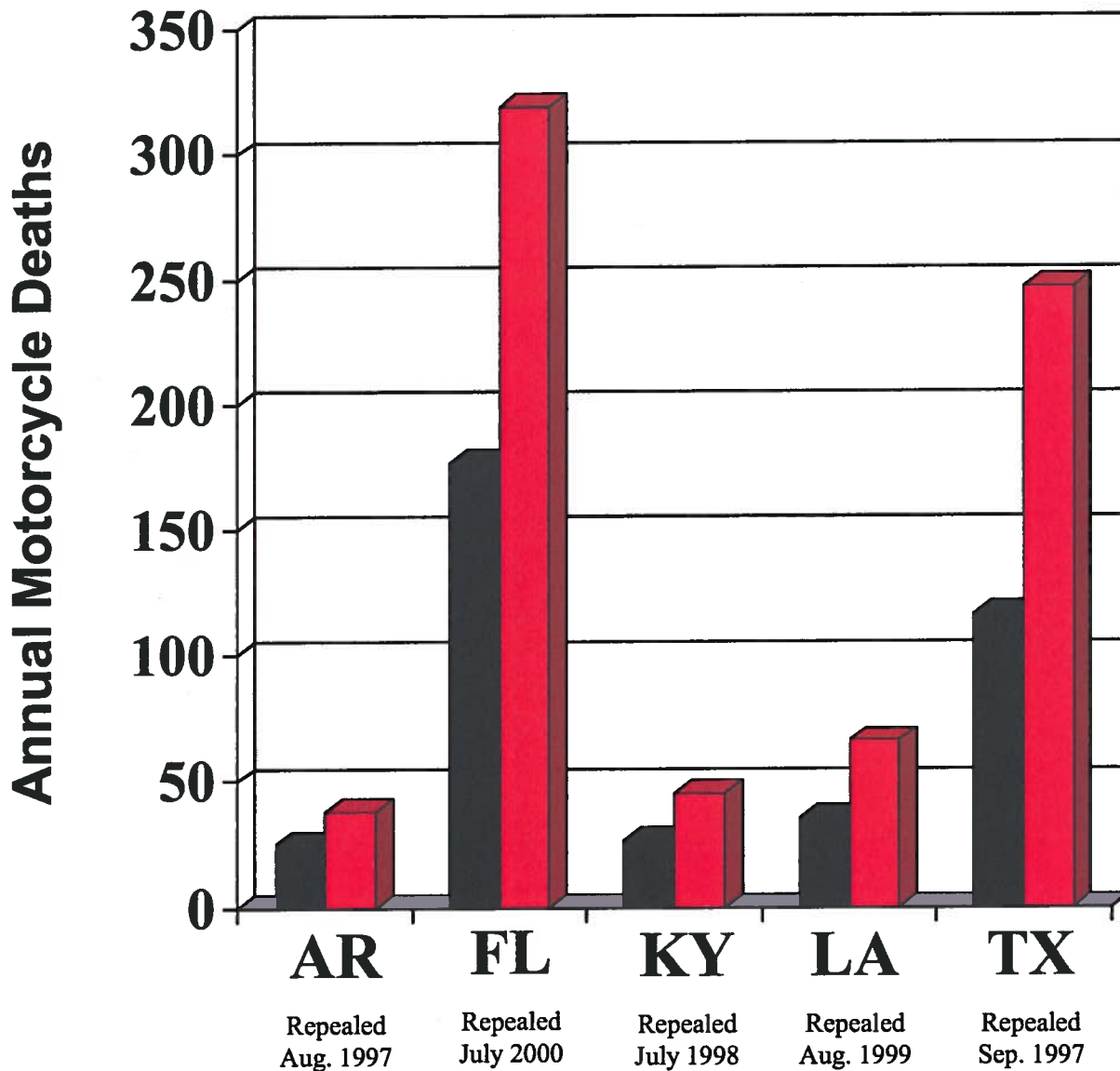
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MOTORCYCLE DEATHS

in

5 STATES BEFORE AND AFTER HELMET LAW REPEALS



- Motorcycle deaths for the year before the helmet law was repealed
- Motorcycle deaths for 2002



**ADVOCATES
FOR HIGHWAY
AND AUTO SAFETY**
www.saferoads.org

Data is taken from the National
Highway Traffic Safety
Administration's Fatality Analysis
Reporting System, 1996-2002.



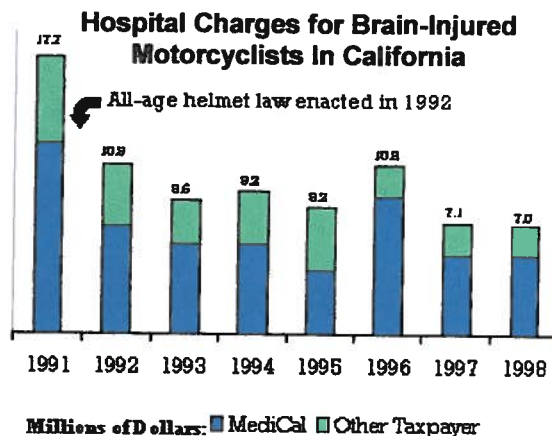
ALL-RIDER MOTORCYCLE HELMET LAWS SAVE LIVES AND TAX DOLLARS

A Rider's Personal Choice Stops Being Personal When It Ends Up Costing Us All

Almost 50 percent of motorcycle crash victims have no private health insurance and their medical bills are paid from Medicaid or other public assisted health care funds. As states have repealed their helmet laws, helmet use has declined from 71 percent to 58 percent nationally, with deaths and traumatic brain injuries on the rise.

Motorcycle deaths have increased for six years in a row, from 2,116 in 1997 to 3,661 in 2003.

In 1998, hospital charges for hospitalized brain-injured motorcyclists was 60% lower than before the law. (Trauma Foundation, 2002)



Repealing The All-Rider Helmet Law Is Bad Fiscal Policy

In 2004, Maryland estimated that a repeal of its all-rider helmet law would increase Medicaid expenditures by \$750,000 in the first year and annually up to a *million dollars* within four years.

The average treatment cost for a motorcycle accident-related head injury is \$43,000.
The annual cost of serving one brain-injured individual in an inpatient setting is \$100,000.

Traumatic Brain Injuries Are Costly... For A Lifetime

- Permanent disability and impairment
- Long-term nursing care
- Physical therapy and rehabilitation
- Costs to welfare and other social services

**When Everyone Has To Pay,
It's No Longer About Personal Freedoms**

For more information on motorcycle helmet safety, contact Advocates For Highway And Auto Safety at 202-408-1711 or visit our website at www.saferoads.org

Sources: Maryland Fiscal Note regarding SB611, February 7, 2004, the National Highway Traffic Safety Administration's Motorcycle Helmet Use Laws fact sheet, April 2004, Fatality Analysis Reporting preliminary data for 2003. May 2004

TOP REASONS WHY EVERY STATE SHOULD PASS AN ALL-RIDER MOTORCYCLE HELMET LAW

1. HELMET LAWS SAVE LIVES

Death rates from head injuries are twice as high among motorcyclists in states without all-rider helmet laws. Motorcycle helmets are 37 percent effective in preventing motorcyclist deaths and 67 percent effective in preventing brain injuries.



2. HELMET LAWS INCREASE USE

Studies show that helmet use approaches 100% in states with all-rider motorcycle helmet laws. In states without all-rider laws, helmet use was 53% in 2002 and only 46% in 2005. Age-specific helmet laws are virtually impossible to enforce and there is no evidence that these laws reduce deaths and injuries.

3. FISCAL RESPONSIBILITY

Un-helmeted riders have higher health care costs as a result of their crash injuries and nearly half lack private insurance. The financial burden for treatment and care of uninsured motorcycle crash victims is placed on the government and taxpayers. In 2005, Maryland estimated that a repeal of its all-rider helmet law would increase Medicaid expenditures by *\$1.2 million* in the first year and annually up to *\$1.5 million* thereafter.

4. FATALITIES AND INJURIES ARE CLIMBING

In 2006, 4,810 motorcycle riders died in crashes. Motorcycle fatalities are at their highest level in 20 years, and now account for over 10% of all annual fatalities, even though motorcycles make up less than 2% of all registered vehicles and only 0.4% of all vehicle miles traveled.

5. THE PUBLIC OVERWHELMINGLY SUPPORTS HELMET LAWS

According to a motor vehicle occupant survey conducted by NHTSA, 81 percent reported that they favored mandatory helmet use laws for motorcyclists. A 2004 Lou Harris poll commissioned by Advocates yielded the same results.

6. ALTERNATIVES ARE COSTLY AND INEFFECTIVE

There is no scientific evidence that motorcycle rider training reduces crash risk and is an adequate substitute for an all-rider helmet law. A review conducted in 1996 by the Traffic Injury Research Foundation concluded that there is "no compelling evidence that rider training is associated with reductions in collisions." The Centers for Disease Control and Prevention also supports these claims. If elimination of risk exposure is not possible, then risk management, in the form of a universal helmet law, is the next best option.

7. HELMETS DO NOT INCREASE THE LIKELIHOOD OF SPINAL INJURY OR CRASH

Critics of helmet laws often cite a highly disputed study by J.P. Goldstein indicating the added weight of helmets cause neck and spinal injuries during crashes. More than a dozen peer-reviewed medical studies have refuted this claim. A study reported in the *Annals of Emergency Medicine* in 1994 analyzed 1,153 motorcycle crashes in four states and determined that helmets reduce head injuries without an increased occurrence of spinal injuries in motorcycle trauma. Studies also show that helmets do not restrict vision, interfere with hearing, or cause heat discomfort.

(Sources: National Highway Traffic Safety Administration(NHTSA), *Fatal Analysis Reporting System*, 2005; Advocates for Highway and Auto Safety, *Insurance Institute for Highway Safety*)



Motorcycle Helmets and Helmet-Use Laws

Research Facts Every Rider and Legislator Needs to Know

Introduction

Compared with cars, motorcycles are an especially dangerous form of travel. The federal government estimates that per mile traveled, the number of deaths on motorcycles in 2006 was about 35 times the number in cars.¹ Motorcyclist deaths have been rising in recent years — more than doubling by 2006 from the all-time low in 1997. Motorcycles often have excessive performance capabilities, including especially rapid acceleration and high top speeds. They are less stable than cars in emergency braking and less visible to other motorists. Motorcyclists are more prone to crash injuries than car occupants because motorcycles are unenclosed, leaving riders vulnerable to contact hard road surfaces. This is why wearing a helmet is so important. Helmets are the principal countermeasure for reducing crash-related head injuries, the leading cause of death among unhelmeted riders.²

1. How effective are helmets?

Helmets decrease the severity of head injuries, the likelihood of death, and the overall cost of medical care. They are designed to cushion and protect riders' heads from the impact of a crash. Just like safety belts in cars, helmets cannot provide total protection against head injury or death, but they do reduce the incidence of both. The National Highway Traffic Safety Administration (NHTSA) estimates that motorcycle helmets reduce the likelihood of crash fatality by 37 percent.² Norvell and Cummings found a 39 percent reduction in the risk of death after adjusting for age, gender, and seat position.³ Helmets are highly effective in preventing brain injuries, which often require extensive treatment and may result in lifelong disability. In the event of a crash, unhelmeted motorcyclists are three times more likely than helmeted riders to suffer traumatic brain injuries.² While no real-world crash studies have yet evaluated the effectiveness of novelty helmets or helmets that do not meet federal performance standards in preventing injury or death, recent NHTSA laboratory tests suggest that head injuries are much more likely with these helmets than with US Department of Transportation certified ones.⁴

2. Are there drawbacks to helmet use?

Claims have been made that helmets increase the risk of neck injury and reduce peripheral vision and hearing, but there is no credible evidence to support these arguments. A study by J.P. Goldstein often is cited by helmet opponents as evidence that helmets cause neck injuries, allegedly by adding to head mass in a crash.⁵ More than a dozen studies have refuted Goldstein's findings. A study reported in the *Annals of Emergency Medicine* in 1994 analyzed 1,153 motorcycle crashes in four midwestern states and determined that "helmets reduce head injuries without an increased occurrence of spinal injuries in motorcycle trauma."⁶

Regarding claims that helmets obstruct vision, studies show full-coverage helmets provide only minor restrictions in horizontal peripheral vision. A 1994 study found that wearing helmets restricts neither the ability to hear horn signals nor the likelihood of seeing a vehicle in an adjacent lane prior to initiating a lane change. To compensate for any restrictions in lateral vision, riders increased their head rotation prior to a lane change. There were no differences in hearing thresholds under three helmet conditions: no helmet, partial coverage, and full coverage. The noise generated by a motorcycle is so loud that any reduction in hearing capability that may result from wearing a helmet is inconsequential. Sound loud enough to be heard above the engine can be heard when wearing a helmet.⁷

3. What is the history of helmet use laws in the United States?

In 1967, the federal government began requiring states to enact *motorcycle helmet use laws* to qualify for certain federal safety program and highway construction funds. Forty states enacted universal helmet use laws that went into effect by the end of 1969. By 1975, all but three states mandated helmets for all motorcyclists.

As the US Department of Transportation moved in 1976 to assess financial penalties on states without helmet laws, Congress responded to state pressure by revoking federal authority to assess penalties for noncompliance. Between 1976 and 1978, 20 states weakened their helmet use laws to apply only to young riders, usually younger than 18. Eight states repealed helmet use requirements for all motorcyclists.

In the 1980s and early 1990s, several states reinstated helmet laws applying to all riders. In the 1991 Intermodal Surface Transportation Efficiency Act, Congress created incentives for states to enact helmet use and safety belt use laws. States with both laws were eligible for special safety grants, but states that had not enacted them by October 1993 had up to 3 percent of their federal highway allotment redirected to highway safety programs.

Four years after establishing the incentives, Congress again reversed itself. In the fall of 1995, Congress lifted federal sanctions against states without helmet use laws, paving the way for state legislatures to repeal helmet laws. In 1997, helmet laws in Texas and Arkansas were weakened to apply only to younger riders. Kentucky weakened its law in 1998, Louisiana weakened its law in 1999 only to reinstate universal coverage in 2004, Florida weakened its law in 2000, and Pennsylvania weakened its law in 2003. Now 20 states and the District of Columbia have helmet laws covering all riders, and 27 states have laws covering some riders, usually people younger than 18. Illinois, Iowa, and New Hampshire do not have helmet laws.

4. How do helmet laws affect helmet use?

Based on studies of the effects of states' enactment, repeal, or weakening of universal helmet laws, use approached 100 percent when all motorcyclists were required to wear helmets, compared with about 50 percent when there was no helmet law or a law applying only to some riders.^{8,9} According to NHTSA, in 2007, 97 percent of motorcyclists observed in states with universal helmet laws were wearing helmets, compared with 90 percent in 2002. In states without such laws, helmet use was 53 percent in 2002 and 50 percent in 2007. Based on helmets judged to be compliant with federal safety regulations, use was 73 percent in 2002 and 74 percent in 2007 among motorcyclists in states with universal helmet laws and declined from 46 to 42 percent among motorcyclists in states without such laws.^{10,11}

5. How do helmet laws affect motorcyclist death and injuries?

In states that either reinstated or enacted universal motorcycle helmet laws, helmet use increased dramatically, and motorcyclist deaths and injuries decreased. In states that repealed or weakened their universal helmet laws, helmet use declined sharply, and motorcyclist deaths and injuries rose.

- California's helmet use law covering all riders took effect on January 1, 1992. Helmet use jumped to 99 percent from about 50 percent before the law.¹² During the same period, the number of motorcyclist fatalities in California decreased 37 percent to 327 in 1992 from 523 in 1991.¹³
- Nebraska reinstated a helmet law on January 1, 1989 after repealing an earlier law in 1977. The state then saw a 22 percent reduction in motorcyclist serious head injuries.¹⁴

- From 1968 to 1977, Texas had a universal helmet use law estimated to have saved 650 lives, but the law was amended in 1977 to apply only to riders younger than 18. The weakened law coincided with a 35 percent increase in motorcyclist fatalities. Texas reinstated its helmet law for all motorcyclists in September 1989. The month before the law took effect, the helmet use rate was 41 percent. The rate jumped to 90 percent during the first month of the law and had risen to 98 percent by June 1990.¹⁵ Serious injury crashes per registered motorcycle decreased 11 percent.¹⁶ But in September 1997, Texas again weakened its helmet law, requiring helmets only for riders younger than 21. Helmet use in Texas dropped to 66 percent by May 1998, and operator fatalities increased 31 percent in the first full year following the repeal.¹⁷
- Kentucky repealed its universal helmet law in 1998, followed by Louisiana in 1999. These actions resulted in lower helmet use, and quickly increased motorcyclist deaths in these states by 50 percent and 100 percent, respectively.¹⁸
- In 2000, Florida's universal helmet law was weakened to exempt riders 21 and older who have at least \$10,000 of medical insurance coverage. An Institute study found that the motorcyclist death rate in Florida increased by about 25 percent after the state weakened its helmet law. The death rate rose from 31 fatalities per 1,000 crash involvements before the law change (1998-99) to 39 fatalities per 1,000 crash involvements after (2001-2002). An estimated 117 deaths could have been prevented during 2001-02 if the law had not been changed.¹⁹ An evaluation of the Florida law change by NHTSA found a similar effect; motorcyclist deaths per 10,000 motorcycle registrations increased 21 percent during the two years after the law was changed compared with the two years before.²

6. What other benefits result from helmet use laws?

Helmet use laws may lead to a decline in motorcycle thefts, possibly because some potential thieves do not have helmets, and not wearing a helmet would attract police notice. After Texas enacted its universal helmet law, motorcycle thefts in 19 Texas cities decreased 44 percent between 1988 and 1990, according to the Texas Department of Public Safety. Motorcycle thefts dropped dramatically in three European countries after the introduction of laws that fined motorcyclists for failure to wear helmets. In London, motorcycle thefts fell 24 percent after Great Britain enacted a helmet law in 1973. The Netherlands saw a 36 percent drop in thefts in 1975 when its law was enacted. And in former West Germany, where on-the-spot fines were introduced in 1980, motorcycle thefts plummeted 60 percent.²⁰

7. How do helmet use laws impact health care costs?

Unhelmeted riders have higher health care costs as a result of their crash injuries, and many lack health insurance. In November 2002, NHTSA reported that 25 studies of the costs of injuries from motorcycle crashes "consistently found that helmet use reduced the fatality rate, probability and severity of head injuries, cost of medical treatment, length of hospital stay, necessity for special medical treatments, and probability of long-term disability. A number of studies examined the question of who pays for medical costs. Only slightly more than half of motorcycle crash victims have private health insurance coverage. For patients without private insurance, a majority of medical costs are paid by the government."²¹ Among the specific findings of several of the studies:

- A 1996 NHTSA study showed average inpatient hospital charges for unhelmeted motorcyclists in crashes were 8 percent higher than for helmeted riders (\$15,578 compared with \$14,377).²²
- After California introduced a helmet use law in 1992, studies showed a decline in health care costs associated with head-injured motorcyclists. The rate of motorcyclists hospitalized for head injuries decreased by 48 percent in 1993 compared with 1991, and total costs for patients with head injuries decreased by \$20.5 million during this period.²³
- A study of the effects of Nebraska's reinstated helmet use law on hospital costs found the total acute medical charges for injured motorcyclists declined 38 percent.¹⁴

A NHTSA evaluation of the weakening of Florida's universal helmet law in 2000 to exclude riders 21 and older who have at least \$10,000 of medical insurance coverage found a huge increase in hospital admissions of cyclists with injuries to the head, brain, and skull. Such injuries went up 82 percent during the 30 months immediately following the law change. The average inflation-adjusted cost of treating these injuries went up from about \$34,500 before the helmet law was weakened to nearly \$40,000 after. Less than one-quarter of the injured motorcyclists would have been covered by the \$10,000 medical insurance requirement for riders who chose not to use helmets.²

Studies conducted in Nebraska, Washington, California, and Massachusetts indicate how injured motorcyclists burden taxpayers. Forty-one percent of motorcyclists injured in Nebraska from January 1988 to January 1990 lacked health insurance or received Medicaid or Medicare.¹⁴ In Seattle, 63 percent of trauma care for injured motorcyclists in 1985 was paid by public funds.²⁴ In Sacramento, public funds paid 82 percent of the costs to treat orthopedic injuries sustained by motorcyclists during 1980-83.²⁵ Forty-six percent of motorcyclists treated at Massachusetts General Hospital during 1982-83 were uninsured.²⁶

8. Are helmet use laws that apply only to young motorcyclists effective?

Weak helmet use laws that apply only to young riders are virtually impossible to enforce, and there is no evidence that these laws reduce deaths and injuries. In 2006, helmets were worn by fewer than 40 percent of fatally injured minors in states with weak helmet laws, even though the laws required them. Helmet use for all riders remains low in states where restricted laws are in effect, and death rates are 20 to 40 percent higher when states have weak laws or no laws, compared with rates when helmet laws apply to all riders.²⁷

In 2000, Florida weakened its helmet law to exclude riders 21 and older with at least \$10,000 of medical insurance coverage. Even though riders younger than 21 still were required to wear helmets under the law change, an Institute study found that riders younger than 21 were 97 percent more likely to die in crashes after the law change than before. Helmet use among fatally injured motorcyclists younger than 21 declined from 72 percent before the law change to 55 percent after.¹⁹

9. How have courts resolved challenges to helmet use laws?

Courts have repeatedly upheld motorcycle helmet use laws under the US Constitution. In 1972, a federal court in Massachusetts told a motorcyclist who objected to the law: "The public has an interest in minimizing the resources directly involved. From the moment of injury, society picks the person up off the highway; delivers him to a municipal hospital and municipal doctors; provides him with unemployment compensation if, after recovery, he cannot replace his lost job; and, if the injury causes permanent disability, may assume responsibility for his and his family's subsistence. We do not understand a state of mind that permits plaintiff to think that only he himself is concerned." This decision was affirmed by the US Supreme Court.

10. Are motorcycle education/training courses a substitute for helmet laws?

Although rider education courses can teach novice motorcyclists basic operating skills and help experienced motorcyclists refresh their skills, they don't appear to reduce the risk of crashes. A 1996 review of the effects of motorcycle rider training in the United States, Canada, and Europe on crash risk concluded that there is "no compelling evidence that rider training is associated with reductions in collisions."²⁸ The New York Department of Motor Vehicles conducted a large-scale analysis of motorcycle rider training between 1981 and 1985. In the NHTSA-sponsored study, motorcycle operator's license applicants were randomly assigned to one of four groups.

One group took the state's existing knowledge and driving test and another took a Motorcycle Operator Skill Test developed by NHTSA. The two remaining groups were assigned to rider training courses, plus the operator skills test. Riders who took the state's standard knowledge and driving test had fewer motorcycle crashes in the subsequent two years than riders in the three experimental training program groups.²⁹

11. Do other countries have motorcycle helmet use laws?

Laws requiring motorcyclists to wear helmets are in effect in most countries outside the United States. Among them are Andorra, Argentina, Australia, Austria, Belgium, Brazil, Bulgaria, Canada, Czech Republic, Denmark, Finland, France, Germany, Hungary, India, Indonesia, Ireland, Italy, Japan, Latvia, Liechtenstein, Luxembourg, Malaysia, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Russian Federation, San Marino, Singapore, Slovakia, South Africa, Spain, Sweden, Switzerland, Thailand, United Kingdom, Venezuela, and Yugoslavia. The first motorcycle helmet use law in the world took effect on January 1, 1961, in Victoria, Australia.

12. Do people support mandatory helmet use?

According to a 2000 motor vehicle occupant survey conducted by NHTSA, 81 percent reported that they favored mandatory helmet use laws for motorcyclists. Support is more prevalent among females (88 percent) than males (72 percent) and among non-motorcyclists (83 percent) than those who drove motorcycles (51 percent). Support was higher in states requiring all riders to wear helmets (84 percent) compared with states with lesser requirements (75 percent) or no requirements (79 percent).³⁰

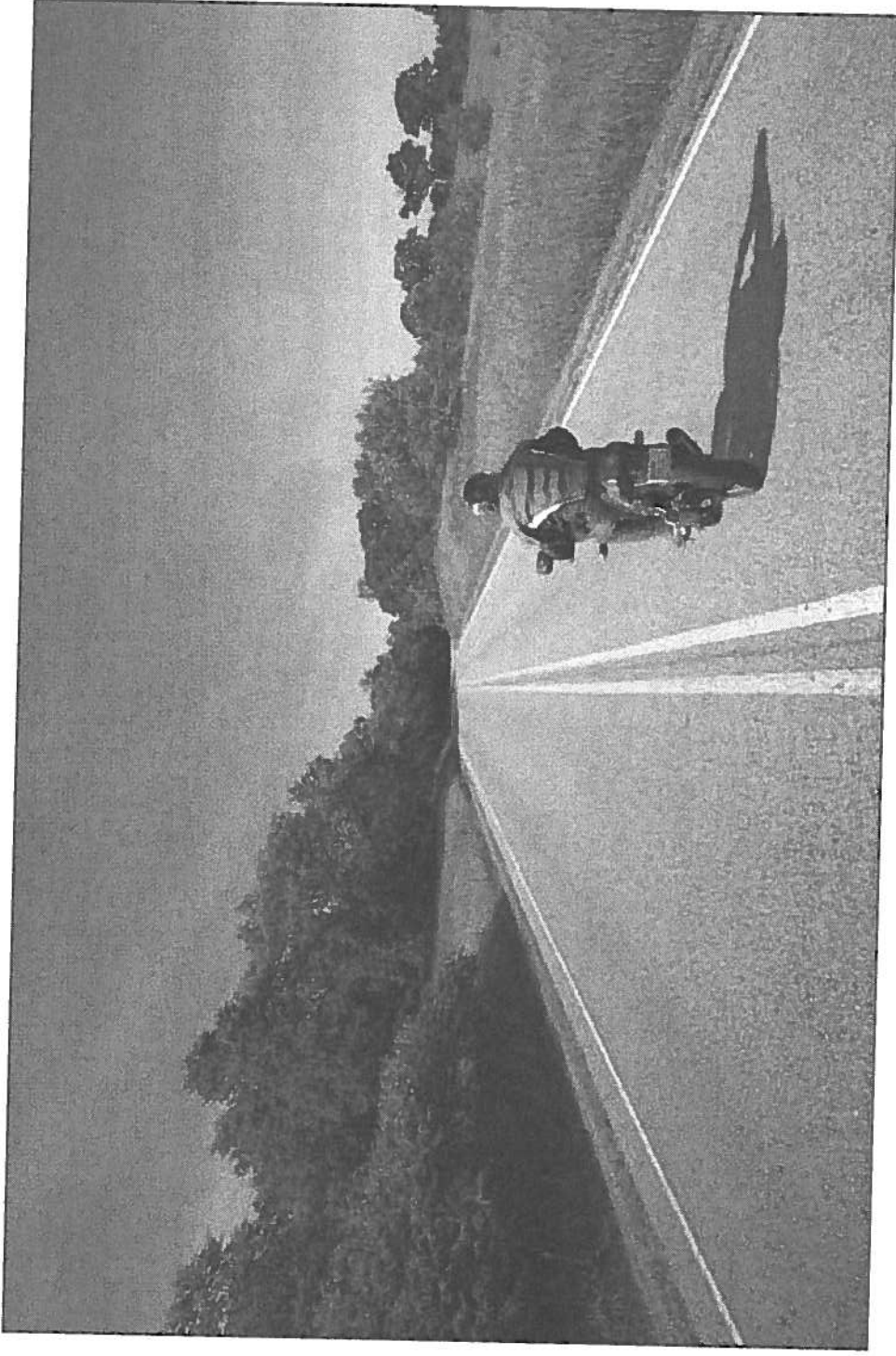
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MOTORCYCLE SAFETY



HOW TO SAVE LIVES AND SAVE MONEY

National Center for Injury Prevention and Control
Division of Unintentional Injury Prevention





PUBLIC HEALTH LEADERSHIP TO KEEP
PEOPLE SAFE ON THE ROAD — EVERY DAY

“Our role is to identify ways to prevent injury and death and rigorously check what works and what does not work. For motorcycle safety, the research shows that universal helmet laws are the most effective way to reduce the number of deaths and traumatic brain injuries that result from crashes.”

Dr. Thomas Frieden, CDC Director



Motorcycle deaths and injuries are an important public health concern and economic liability in the United States.

In this Guide, you will learn:

- the public health significance of motorcycle crashes
- the best way to protect motorcycle riders
- how your state compares with other states in terms of motorcycle-related deaths and economic costs
- what you can do to increase motorcycle safety.

OVERVIEW

DEATHS ON THE RISE

Motorcycle-related deaths increased every single year between 1997 and 2008, a 150% increase.¹

Motorcycle crashes killed 5,290 people in 2008.²

Preventing debilitating injuries and deaths from motorcycle crashes is a significant and growing public health concern.

THE COST

The cost of motorcycle crashes is not just measured in bodies, loss, and grief. Motorcycle crashes create a burden to society, consuming public funds for emergency response, emergency room costs, and insurance premiums.³ In terms of medical care costs and productivity losses...

The economic burden from crash-related injuries and deaths in one year alone totaled \$12 billion.⁴

PREVENTION THAT WORKS

With motorcycle ownership at an all-time high, motorcycle-related deaths and traumatic brain injuries are expected to remain at high levels unless more effective protective measures are enacted. Helmets are the only safety measure proven to save lives, and the universal helmet law (one that covers all motorcycle riders) is demonstrated to be the best way to ensure helmet use.⁵

OVERWHELMING PUBLIC SUPPORT

Four out of five Americans favor helmet laws.

Support is high in states with laws that require helmet use as well as states with no helmet law.^{6, 7, 8, 9}

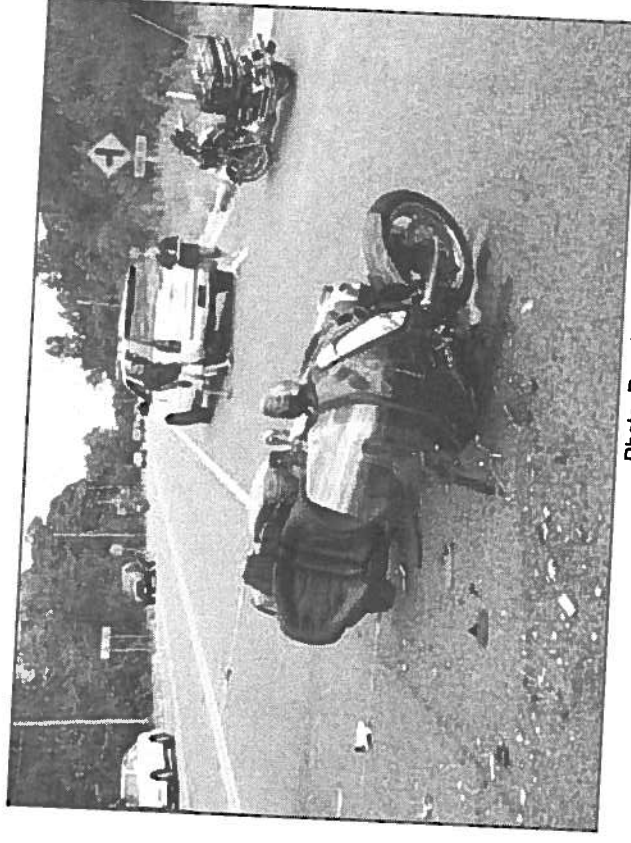


Photo: Dennis Hook, Hooked on Photography

PEOPLE WHO RIDE, PEOPLE WHO DIE

REAL PEOPLE DYING EVERY DAY



The mother of a 13-year-old girl clinging to life wonders why her daughter wasn't wearing a helmet as she rode on the back of a motorcycle driven by her father... They were both listed in critical condition Sunday — a “touch-and-go” situation two weeks after the motorcycle accident which is under investigation by the Lake County Sheriff's Office.

News Sun, August 2007¹⁰



When Ryan died from a motorcycle crash in 2004, the whole family was devastated. First, his brother became addicted to drugs, and after years of struggling with his addiction, he just recently got out of rehab. Then, his best friend tried to commit suicide. My cousin Ryan was only 24 when he died. His parents are still struggling to deal with the death of one son, and the damage to the other from drugs — both as a result of the crash. We're from a small town and everyone felt it. We're all looking for ways to cope.

Emily W., January 2010¹¹

Today, more people are riding motorcycles than ever before. Motorcycle riders represent almost every demographic group in the country. Riders now tend to be more affluent than 30 years ago. The average age of riders has increased, and more women are riding than ever before.¹² The profile of who crashes and who dies has changed too:

Age: Young people are not the only ones dying in motorcycle crashes. In 2008, more than half the people killed in motorcycle crashes were 40 or older, up from 33% in 1998.¹³

Sex: While only 9% of riders killed in motorcycle crashes in 2008 were women, almost all passengers (89%) killed in motorcycle crashes were women.²

Helmets: People who do not wear helmets are more likely to be killed in a crash. Forty-one percent of motorcycle operators and 51% of motorcycle passengers who died in 2008 were not wearing a helmet.¹³

Location: More people are killed in motorcycle crashes on rural roads now than 20 years ago. Roughly half of all crashes take place on rural roads.¹⁴

Alcohol: When people drink and ride, they are at much greater risk of crashing and dying. Alcohol was involved in 37% of motorcycle crashes in 2008.¹³

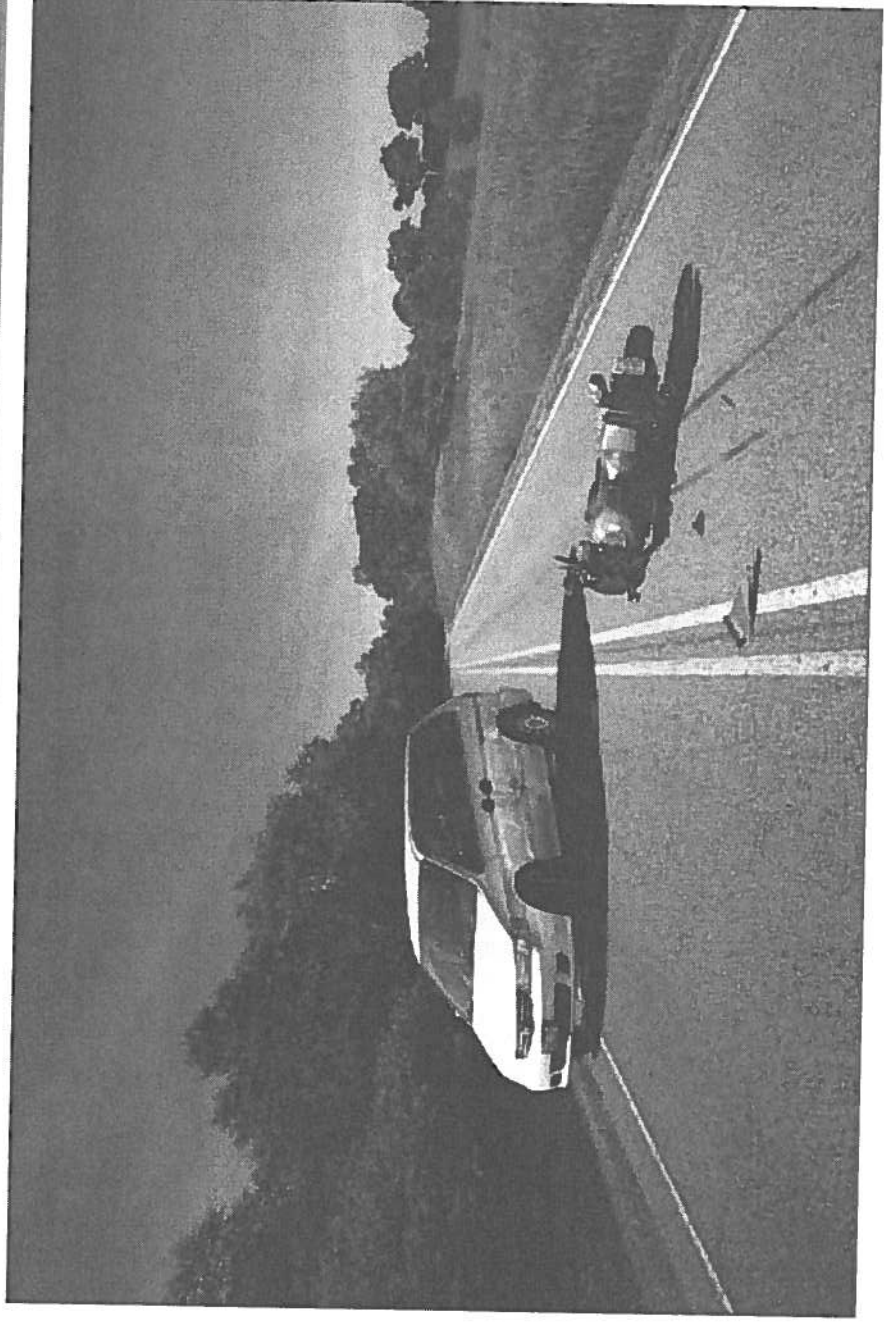
Motorcycle Type: The majority of people who die in crashes are riding sport motorcycles with mid-size engines designed to maximize speed and agility.¹⁴

WHO DIES?

While studying for ministry, I spent a year as chaplain resident at a Chicago hospital. I was "on call" one evening when the emergency room paged me. An ambulance had just brought in a fellow who'd been riding his motorcycle without a helmet when an SUV had turned in front of him. Unable to turn or stop, he had hit the vehicle, ramming his head into a door. He was a classic "biker dude": muscular arms, tattoos, and a couple day's growth of beard. He was unconscious and his face was swollen and turning purple. Emergency room staff swarmed around him.

I spent most of the night with that family. I listened to their stories, I shared their tears. The couple had two teenagers, plus a younger girl, age nine. I think about his family every time I see a biker zoom by without a helmet. Helmets and cautious driving save lives. If, like this fellow, you have tough biker friends, I suppose they will tease you pretty hard if you do wear a helmet. It takes a thick skin and courage to handle teasing. Then again, I wonder how much courage it took for the nine-year-old girl to go in and say goodbye to her father?

Reverend Dennis McCarty¹⁵



"From the moment of injury, society picks the person up off the highway; delivers him to a municipal hospital and municipal doctors; provides him with unemployment compensation if, after recovery, he cannot replace his lost job; and, if the injury causes permanent disability, may assume responsibility for his and his family's subsistence. We do not understand a state of mind that permits plaintiff to think that only he himself is concerned."

Opinion of the Federal Court of Massachusetts, 1972
Affirmed by the United States Supreme Court¹⁶



Photo: Bill Lavallie, Fine Line International

"A group of state legislators from across the country heard a presentation from a University of New Mexico neurosurgeon. At the end of his talk, one legislator asked, 'If there was one thing we could do in the legislature to make your job easier, what would it be?'

They expected to hear, 'Give us more money' or 'Increase our budget!'
Instead the surgeon answered, 'Pass a motorcycle helmet law.'"

Melisa Savage
National Conference of State Legislatures¹⁷

PAYING THE BILL

WHO PAYS?

Everyone pays when a motorcycle rider is severely injured. You can talk about freedom of choice, but when other people have to pay for the consequences of that choice, then it's not freedom of choice at all.

Lt. Col. James Champagne

Executive Director, Louisiana Highway Safety Commission, Retired¹⁸

THE PUBLIC PAYS

It is estimated that the economic burden of injuries and deaths from motorcycle related crashes in one year totaled \$12 billion.⁴ Studies have also shown that a substantial proportion of costs are paid by the U.S. public due to higher insurance premiums and taxes, as well as lost tax revenue.^{3, 19, 20}

A study of 105 motorcyclists hospitalized at a major trauma center determined that 63% of their care was paid for by public funds, with Medicaid accounting for over half of all charges.²⁰

KEY FACTORS

Two key factors influence the public's financial burden from motorcycle crashes: helmet use and hospital and rehabilitation costs.

- Unhelmeted motorcycle riders injured in a crash and admitted to hospitals face substantially higher healthcare costs than do helmeted riders. Unhelmeted riders also use more of a hospital's critical resources.²¹
- Unhelmeted motorcycle riders are twice as likely to suffer traumatic brain injuries from crashes.^{21, 22, 23, 24} The median hospital charges for motorcycle riders hospitalized with severe traumatic brain injuries were 13 times higher than the charges for those who did not have a traumatic brain injury.²¹
- Unhelmeted motorcycle riders are less likely to have health insurance and are therefore more likely to have their medical expenses paid by government-funded healthcare.¹⁹

"Despite the effectiveness of motorcycle helmet legislation, many states have repealed these laws during the last decade. Aspects often neglected by policymakers are who pays for the care of these victims and how much of this cost is subsidized by public funds."

Journal of the American Medical Association.²⁰

SUMMARY OF MOTORCYCLE SAFETY EFFORTS

Motorcycle safety measures include motorcycle operator licensing and training, traffic laws and enforcement, and educational programs and campaigns. Considerable emphasis is placed on educating both motorcycle riders and car drivers that share the road with motorcyclists about safe driving. Additionally, education and outreach efforts often focus on alcohol. However, there is no consistent evidence that any of these measures reduce the number of motorcycle crashes or deaths.

HOW EFFECTIVE ARE THE MEASURES?

	Unknown	Uncertain	Likely	Scientifically Proven	
State motorcycle helmet laws					
Motorcycle rider education and training		✓		✓	Unknown: Limited or no scientific evidence.
Motorcycle rider licensing		✓			Uncertain: Effectiveness is still undetermined.
Helmet use promotion programs	✓				Likely: Demonstrated to be effective in certain situations.
Helmet law enforcement, noncompliant helmets	✓				Scientifically Proven: Demonstrated to be effective in several scientific evaluations with consistent results.
Alcohol impairment: detection and sanction	✓				
Alcohol impairment communications	✓				
Conspicuity and protective clothing	✓				
Other driver awareness of motorcycles	✓				

National Highway Traffic Safety Administration. Countermeasures that Work, 2008²⁵

A few recent studies have shown that mechanical improvements such as antilock brakes can reduce the severity of crashes, and this may affect injuries and deaths.^{5, 25, 26} Other motorcycle safety efforts include improving road conditions, reducing cultural support for rider-group alcohol use, and improving clothing and motorcycle visibility through bright or reflective colors. But again, no consistent evidence shows that any of these measures reduce the number of motorcycle crashes or deaths.^{5, 25}

The only safety measure that costs little to initiate and reaches all riders is a state universal motorcycle helmet law. It is also the only measure proven to improve motorcycle safety.^{5, 25}

PREVENTION THAT WORKS

WHAT WORKS?

I was commuting to work on my motorcycle and headed onto the freeway exchange at about 45 miles an hour. I lost control and laid down my bike, really hit my head, and slid my way to a stop. My motorcycle was scratched, my helmet was banged up, and the rest of my gear was pretty shredded. But I walked away.

The thing is, I never used my helmet where I lived before because I wasn't required to — there was no law. Moving to California meant I had to wear one, and I am so glad that I did. My helmet saved my life.

*Jonathan Hailstone*²⁷

WHAT HELMETS DO

Wearing helmets that meet the Department of Transportation (DOT) standard is the single most effective means of reducing the number of people who get injured or die from motorcycle crashes.⁵

Helmets are estimated to reduce the likelihood of death in a motorcycle crash by 37%.²⁸ The National Highway Traffic Safety Administration (NHTSA) estimates that from 1984 through 2006 helmets saved the lives of 19,230 motorcycle riders.²⁹

Traumatic brain injury is a leading cause of motorcycle crash death.³⁰ Even when not fatal, these debilitating head injuries can mean a lifetime of costly rehabilitation and severe emotional trauma for family and friends. In fact, treating severe traumatic brain injuries costs 13 times more than non-brain injuries.²¹

Helmets reduce the risk of head injury by 69%.^{3, 31}

There are no negative health effects from helmet use. Helmets do not restrict a rider's ability to hear important sounds, or to see a vehicle in the next lane.³²

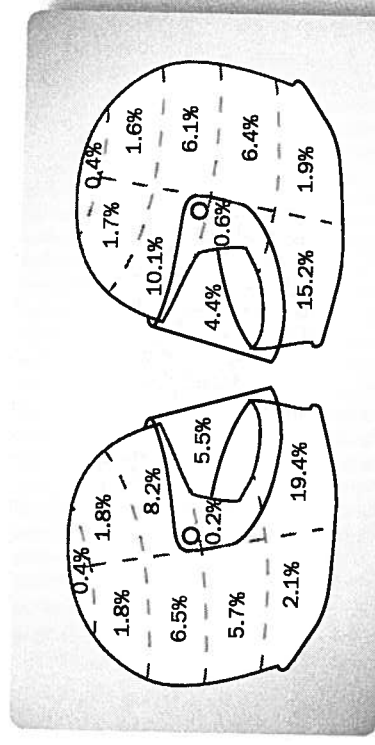
WHEN UNHELMETED RIDERS CRASH

Unhelmeted riders are 40% more likely to die from a head injury than someone wearing a helmet.²⁹

The only proven way to get people to wear helmets is the universal helmet law.⁵

ANATOMY OF A HELMET

Since 1974 all motorcycle helmets are required to meet the DOT standard that establishes the minimum level of protection a helmet must afford each helmet user.²⁸ Full-face helmets offer the most protection, protecting the eyes and face with a face shield and providing protection to the chin. To illustrate the importance of full coverage, research from crashes shows the distribution of impact locations absorbed by motorcycle helmets.³³



Distribution of impact locations on motorcycle helmets, all collisions, based on a study by Dietmar Otte.³³



UNIVERSAL HELMET LAWS INCREASE HELMET USE

THE POSITIVE IMPACT OF STRENGTHENING HELMET LAWS

Rate of helmet use before and after enacting a universal helmet law^{3, 34, 35, 36, 37}

	Under partial/no law	Under universal law
Nebraska (1989*)	15%	85%
Washington (1990*)	41%	80%
California (1992*)	50%	99%
Maryland (1992*)	25%	81%
Louisiana (2004*)	60%	99%
* Year of enactment		

All five states gained a substantial increase in helmet use in the year after the universal helmet law was enacted.

THE NEGATIVE IMPACT OF WEAKENING HELMET LAWS

Rate of helmet use before and after repealing a universal helmet law^{3, 38, 39, 40}

	Under universal law	Under partial law
Arkansas (1997*)	97%	52%
Texas (1997*)	97%	66%
Kentucky (1998*)	96%	65%
Louisiana (1999*)	100%	52%
Florida (2000*)	99%	53%
Pennsylvania (2003*)	82%	58%
* Year of repeal		

All six states showed a substantial decrease in helmet use in the year after the universal helmet law was repealed.

There are two types of helmet laws used in the United States.

Universal Helmet Law: Requires all motorcycle riders and passengers of all ages to wear helmets that meet the DOT standard whenever riding.

Partial Helmet Law: Only requires specific groups of people, such as those below a certain age, to wear helmets.

Each state decides its respective helmet law. As of 2010, 20 states and the District of Columbia had universal helmet laws, 27 states had a partial helmet law, and 3 states had no helmet law. Many states have weakened their helmet law over the years, while a few states have strengthened their helmet law.⁴¹

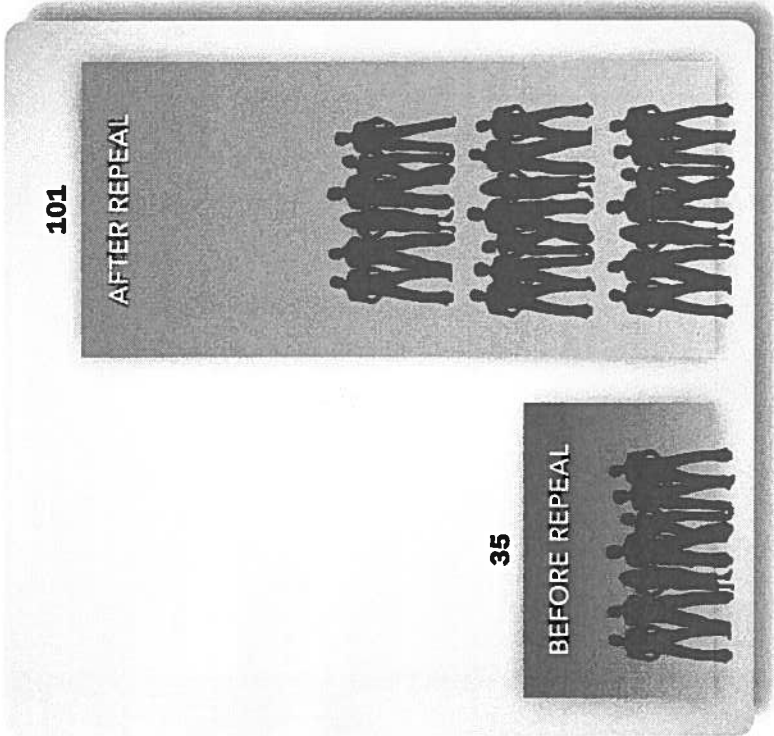
The research on states that change their helmet law is very clear:

- When a state enacts a universal helmet law, helmet use increases substantially.^{3, 34, 35, 36, 37}
- When a state repeals a universal helmet law, helmet use decreases substantially.^{3, 38, 39, 40}
- When a state repeals a universal helmet law, motorcycle deaths and injuries increase.³

THE FLORIDA CASE STUDY

THE NEGATIVE IMPACT OF WEAKENING HELMET LAWS: FLORIDA

Number of deaths of riders under 21 in 30 months before
vs. after repeal.



National Highway Traffic Safety Administration³⁹

DEATHS INCREASE FOR RIDERS COVERED BY PARTIAL HELMET LAWS

Florida is one example of the ineffectiveness of partial laws to save lives. In 2000, Florida repealed its universal helmet law, weakening it to mandate helmet use only for riders under the age of 21 and those with less than \$10,000 of medical insurance coverage.^{39, 41}

Comparing the 30 months after the Florida state legislature repealed its universal helmet law with the 30 months before repeal:

- Deaths of all riders increased by 55%, substantially higher than what was expected from the increased registrations after repeal.^{29,39}
- Among riders under the age of 21, deaths of unhelmeted riders increased by 188%, even though the helmet law still applied to them.^{29, 39}
- Motorcycle crash-related hospitalizations rose more than 40%. The costs of treating head injuries from motorcycle crashes more than doubled to \$44 million.^{29, 39}

Only one in four motorcyclists who were hospitalized had medical costs less than \$10,000, which is the amount of medical insurance coverage that is required to ride without a helmet. Hospital discharge data showed that in the period after repeal, approximately \$10.5 million of hospitalization costs were billed to charitable and public sources such as Medicaid, and an additional \$8 million needed to be covered by patients who were underinsured or uninsured.^{29, 39}



MOTORCYCLE DEATHS AND PARTIAL HELMET LAWS

A CASUALTY

One Florida high school senior was planning to attend college to study business and landscaping on a scholarship. He was involved in his high school drama club, played on the basketball team, ran track, and was a member of the Students Against Destructive Decisions Club.

Hours before his high school graduation, while riding his motorcycle without a helmet, this teenager crashed and died. Under Florida's partial helmet law he should have been wearing a helmet — he was, after all, under 21 years of age.

But like many other motorcyclists in states with partial helmet laws, he didn't wear a helmet.

He paid the price with his life.⁴³

PARTIAL LAWS — WHAT THEY LIMIT

Age: Riders under a specific age, which ranges between 18-21 years, are required to wear helmets. *Applies in all 27 states with partial laws.*⁴¹

Passengers: Passengers are required to wear helmets if they are under a certain age or riding with drivers that are legally required to wear helmets. *Applies in Colorado, Maine, North Dakota, Ohio, and Pennsylvania. Alaska and Rhode Island require all passengers to wear helmets.*⁴¹

Insurance: Florida mandates that motorcycle riders wear helmets unless they have a minimum of \$10,000 of insurance. Kentucky and Texas have a law in place requiring anyone without health insurance to wear a helmet.⁴¹

Licensing: Riders with an instructional or learner's permit or those who are recently licensed are required to wear helmets, regardless of age. *Applies in Alaska, Kentucky, Maine, Minnesota, Ohio, Pennsylvania, Rhode Island, and Wisconsin.*⁴¹

PARTIAL LAWS — WHY THEY DON'T WORK

Research shows that partial helmet laws do not motivate riders to wear helmets.^{39, 42} States with partial laws and states with no helmet law experience little difference in helmet use.⁴⁴ Even though all partial helmet laws apply to minors, fewer than 40% of minors killed in motorcycle crashes in partial-law states were wearing helmets.²⁹ Among young riders who were hospitalized after a crash, the risk of suffering a serious traumatic brain injury was 37% higher in partial law states compared to universal law states.⁴⁵ Only the universal helmet law is proven to increase helmet use.⁵

Compliance is low because partial helmet laws are difficult to enforce. Identifying partial law violations is problematic. As a result, partial helmet

laws are typically only enforced when a police officer has pulled a rider over for another infraction, such as speeding.⁴⁶



HELMET LAWS SAVE LIVES AND MONEY

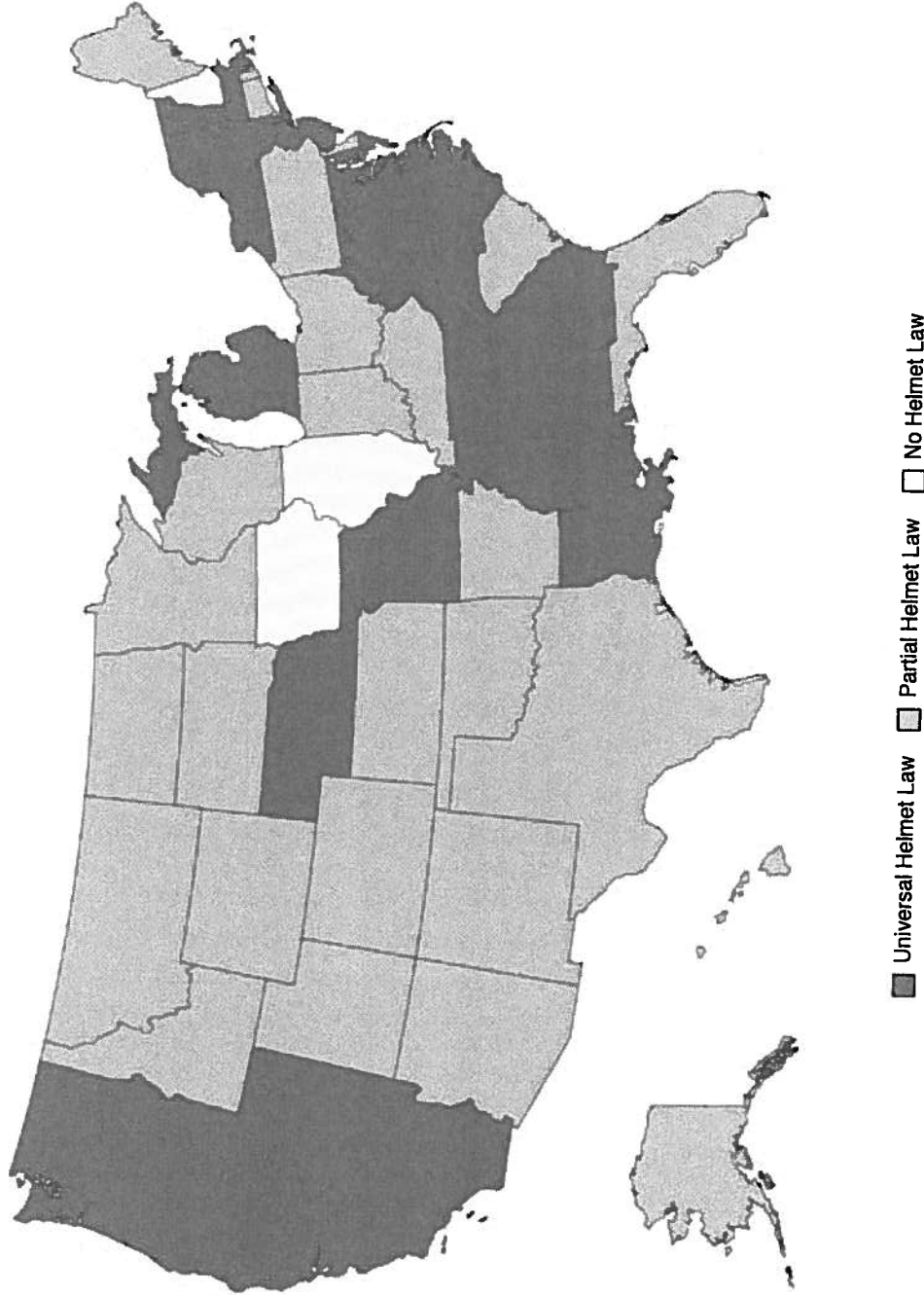
MOTORCYCLE HELMET LAWS IN THE UNITED STATES, 2010

HOW DOES YOUR STATE MEASURE UP?

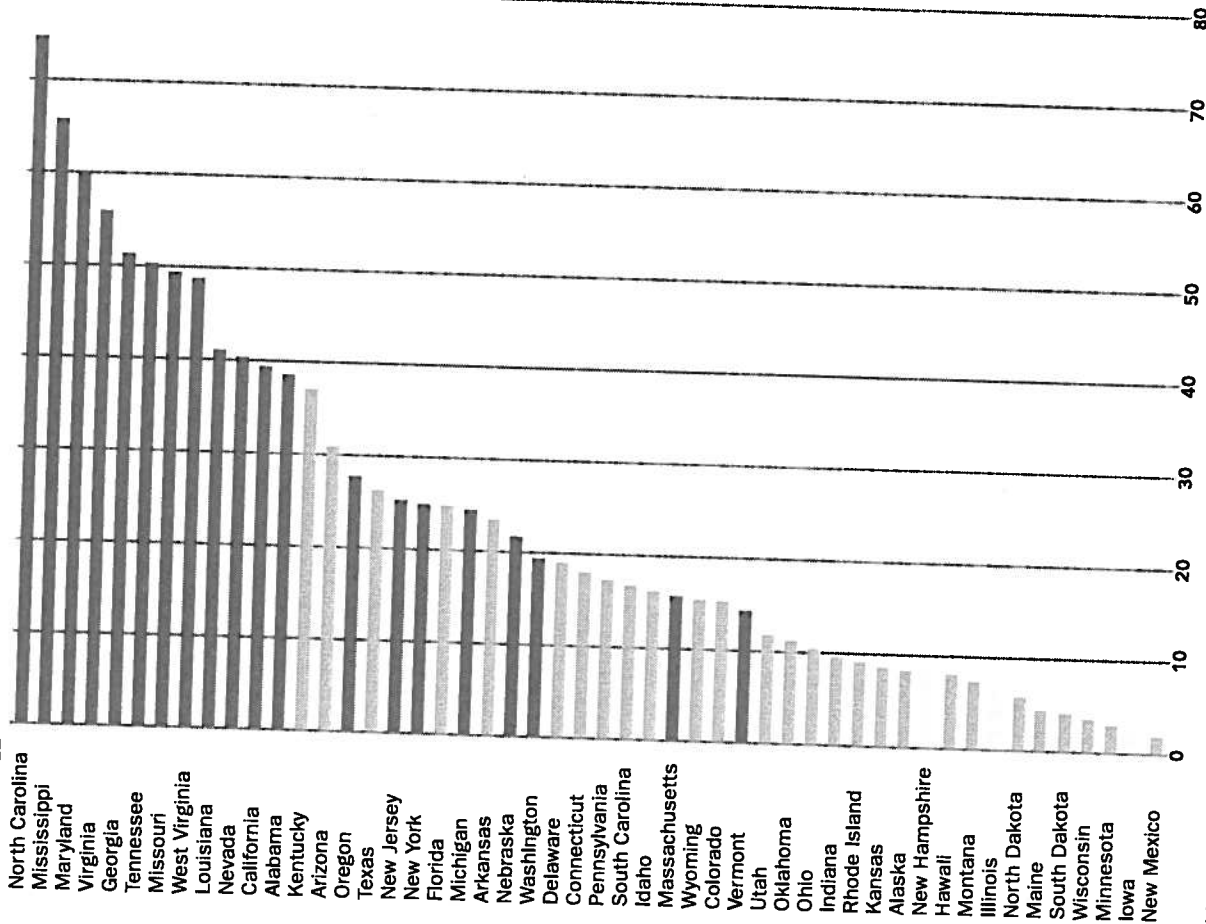
In 2008, 42% of motorcyclists who were fatally injured were unhelmeted. Helmets saved over 1,800 riders' lives, but about 800 more lives could have been saved if all the riders had worn helmets.⁴⁷

On average, states protecting motorcycle riders with a universal helmet law save 40 riders per 100,000 motorcycle registrations because of helmet use, while states with no law only save 6 riders per 100,000 motorcycle registrations, and states with partial helmet laws only save 14 riders per 100,000 motorcycle registrations because of their lower rates of helmet use.⁴⁷

When the economic costs are calculated, states with universal helmet laws, on average, **save triple** the costs per registered motorcycle, compared to states without a universal helmet law.



LIVES SAVED

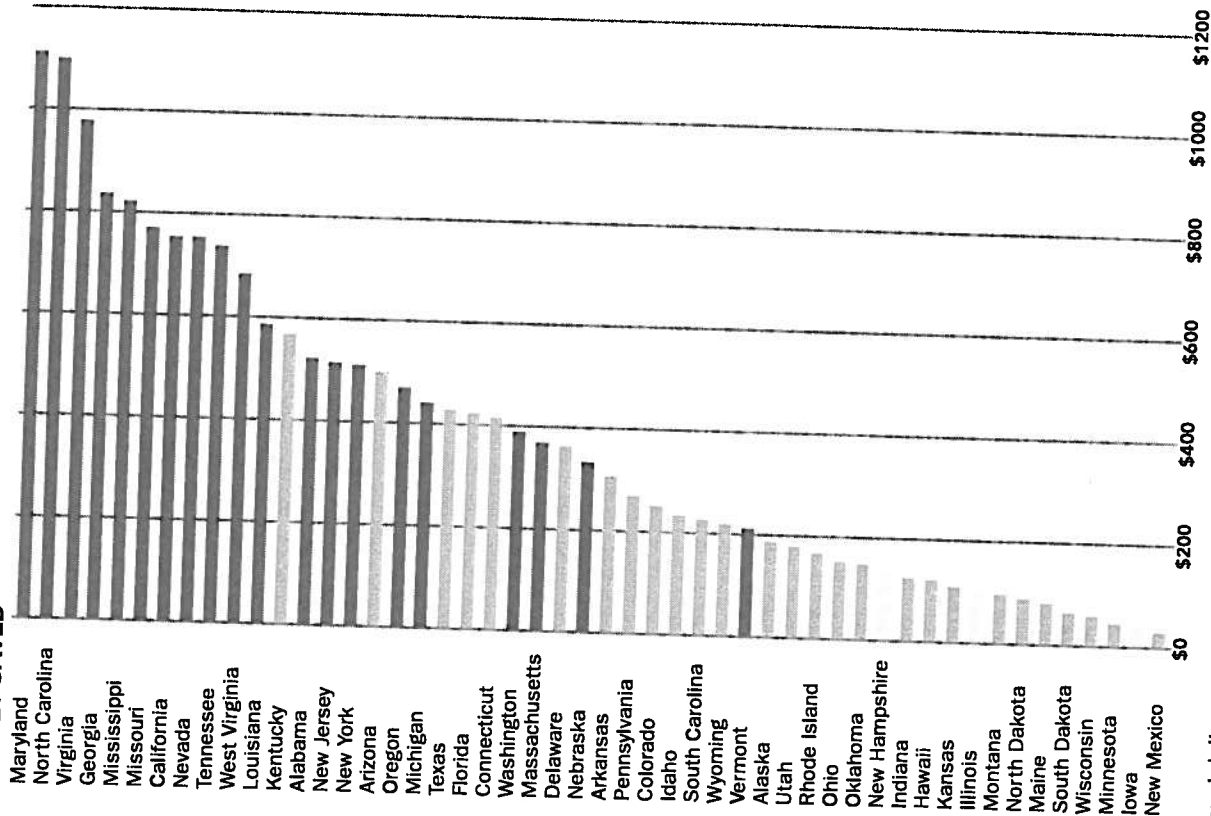


Lives saved by helmet use per 100,000 registered motorcycles by state, 2008

Note: For comparison purposes, lives saved are standardized by motorcycle registrations (per 100,000 registrations) for each state.

☒ Universal Helmet Law
 ☐ Partial Helmet Law
 ☐ No Helmet Law

MONEY SAVED



Annual dollars saved by helmet use per registered motorcycle by state, 2008

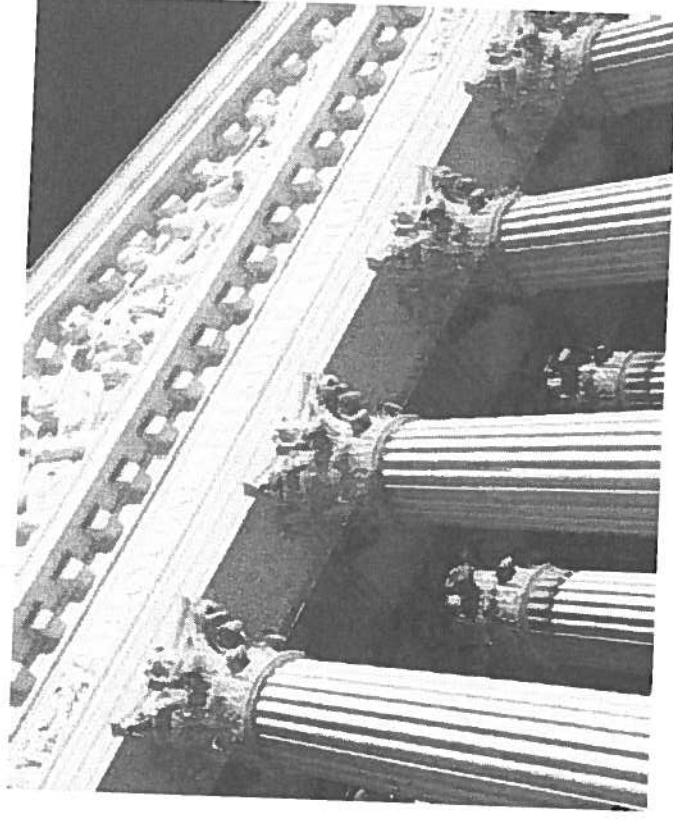
Note: For comparison purposes, money saved is standardized by motorcycle registrations for each state.

☒ Universal Helmet Law
 ☐ Partial Helmet Law
 ☐ No Helmet Law

National Highway Traffic Safety Administration^{47, 48}

"...vast majorities of the American people accept and support the idea that on safety issues it is desirable and necessary for government to set standards and enforce laws designed to protect the public."

Advocates for Highway and Auto Safety⁸



"During our consideration of the motorcycle helmet law, I became aware that the vast majority of my constituents were in favor of maintaining our mandatory helmet usage law: Mothers, Doctors, Safety Activists, Seniors, Epilepsy Experts, Hospitals and Law Enforcement Officials. I will always be proud of my vote. I saved lives."

Senator Michael Oliverio
West Virginia State Senate⁴⁹

STRONG PUBLIC SUPPORT

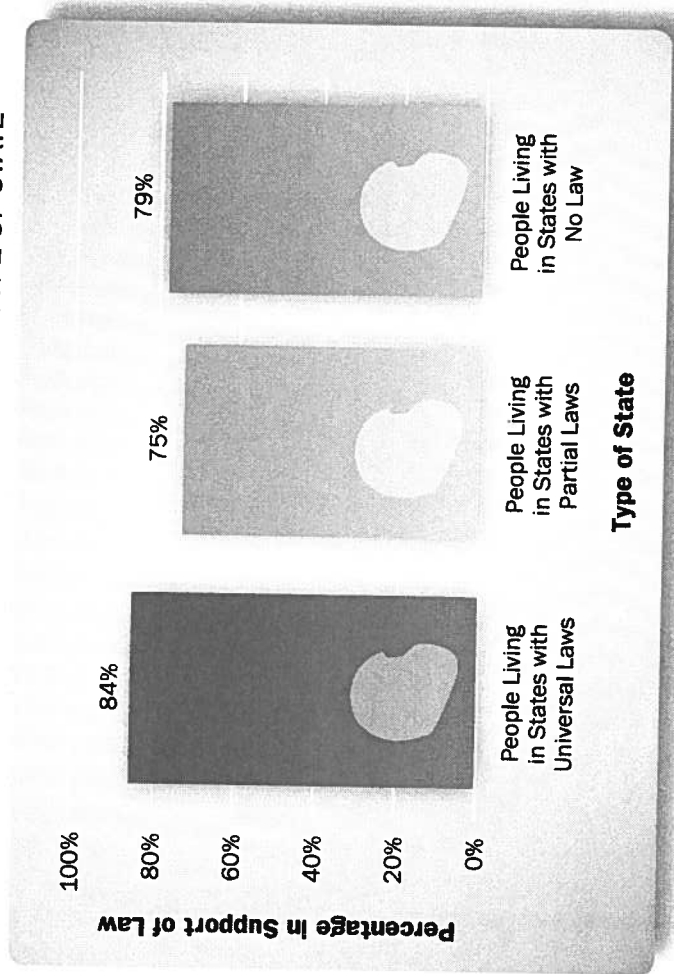
A RIDER, A NURSE

As a rider and a trauma nurse, I would always recommend that riders wear a helmet. I see so much death, loss, grief, and trauma from riders and the loved ones they leave behind because of motorcycle crashes. If laws are what work to get people to wear a helmet, then we should have strong laws in place nationally.

Carlen Hudnet, RN 50

Public support for mandatory helmet laws is high across the board — in states with a universal law, states with a partial law, and states with no law.

SUPPORT OF LAWS MANDATING HELMET USE BY TYPE OF STATE



National Highway Traffic Safety Administration⁶

- Overall, 4 out of 5 Americans favor mandatory helmet laws.^{6, 7, 8, 9}
- The majority of motorcyclists also favor mandated helmet use.^{6, 7}
- This high level of support has remained consistent for many years — even at times when many states have weakened and/or rescinded their universal helmet laws.^{6, 7, 8, 9}

SUPPORTERS OF MOTORCYCLE SAFETY HELMET LAWS

These are just some of the organizations that support motorcycle helmet laws:

- AAA Foundation
- American Association of State Highway and Transportation Officials
- American Academy of Orthopedics
- American Academy of Pediatrics
- American College of Surgeons
- American Public Health Association
- Brain Injury Association
- Emergency Nurses Association
- Epilepsy Foundation of America
- National Safety Council
- Nationwide Insurance
- SADD (Students Against Destructive Decisions)
- ThinkFirst National Injury Prevention Foundation

FAQs

Do helmet laws interfere with a person's freedom to choose whether to wear a helmet?

Yes. Many laws restrict people's freedom to perform behaviors judged contrary to the public good. These include drunk driving laws, cellphone use laws, and infectious disease quarantine laws, to name a few. Courts usually uphold such laws as important to the nation's well-being.

Don't helmets make it harder for riders to see or hear?

No. Helmets that meet the DOT standard do not reduce visibility or impair hearing. By protecting people's heads in crashes, helmets only make riding safer.

If a motorcyclist chooses not to wear a helmet, does it only affect him?

No, not if the rider crashes. Unhelmeted riders injured in a crash have substantially higher healthcare costs than helmeted riders. When the rider is insured, these costs are passed on to others in the form of higher health insurance premiums. Unhelmeted riders are more likely to be uninsured than other riders. When the riders are uninsured, their medical expenses may be paid for using taxpayers' funds.

Can motorcycle safety education substitute for helmet laws?

No. The benefits of motorcycle safety education are unclear. A universal helmet law is the most effective way to reduce the number of people who are seriously injured or killed from motorcycle crashes.

Are universal helmet laws really that much better than partial helmet laws?

Yes. There is strong, substantial, and clear evidence that universal helmet laws save lives and save money. This is not true for partial laws. When a universal helmet law is enacted, helmet use dramatically increases, and states see an across-the-board decrease in deaths. If states repeal the law, they see an increase in deaths.

Do people want the government to regulate helmet use for adult motorcyclists?

Yes. National surveys in 2000, 2004, 2009, and 2010 have consistently shown that more than 80% of Americans favor universal helmet laws.

LEGISLATING MOTORCYCLE SAFETY: A PUBLIC HEALTH PERSPECTIVE

WHAT CAN BE DONE

What can policymakers do?

States should have universal helmet laws, which help save lives and money.

States with a partial helmet law or no helmet law should enact a universal helmet law.

QUICK FACTS

- The single most effective way for states to save lives and save money is a universal helmet law.
- Helmets reduce the risk of death by 37%.
- Helmets reduce the risk of head injury by 69%.
- The United States saved nearly \$3 billion due to helmet use in 2008.
- The United States could have saved an additional \$1.3 billion in 2008 if all motorcyclists had worn helmets.
- Helmets do not reduce visibility or impair hearing.

MOTORCYCLE SAFETY RESOURCES

AAA Foundation

607 14th Street NW

Suite 201

Washington, D.C. 20005

(202) 638-5944

<http://www.aaafoundation.org>

Advocates for Highway and Auto Safety

750 First Street NE

Suite 901

Washington, D.C. 20002

(202) 408-1711

<http://www.saferoads.org>

American College of Emergency

Physicians

1125 Executive Circle

Irving, TX 75038

(972) 550-0911

<http://www.acep.org>

American College of Surgeons

633 N. Saint Clair Street

Chicago, IL 60611

(312) 202-5000

<http://www.facs.org>

Brain Injury Association of America

1608 Spring Hill Road

Suite 110

Vienna, VA 22182

(703) 761-0750

<http://www.biausa.org>

Emergency Nurses Association

915 Lee Street

Des Plaines, IL 60016-6569

(800) 900-9659

<http://www.ena.org>

Governors Highway Safety Association

444 North Capitol Street NW

Suite 722

Washington, D.C. 20001

(202) 789-0942

<http://www.ghsa.org>

Head Protection Research Laboratory

6409 Alondra Boulevard

Paramount, CA 90723

(562) 529-3295

<http://www.hpri.org>

Insurance Institute for Highway Safety

1005 N. Glebe Road

Suite 800

Arlington, VA 22201

(703) 247-1500

<http://www.iihs.org>

Motorcycle Safety Foundation

2 Jenner Street

Suite 150

Irvine, CA 92618

(800) 446-9227

<http://www.msf-usa.org>

National Center for Injury Prevention and Control

Centers for Disease Control and Prevention

1600 Clifton Road

Atlanta, GA 30333

(800) 232-4636

<http://www.cdc.gov>

National Conference of State Legislatures

7700 East First Place

Denver, CO 80230

(303) 364-7700

<http://www.ncsl.org>

National Highway Traffic Safety Administration
1200 New Jersey Avenue SE
West Building
Washington, D.C. 20590
(888) 327-4236
Hearing Impaired (TTY): (800) 424-9153
<http://www.nhtsa.dot.gov>

National Transportation Safety Board
490 L'Enfant Plaza SW
Washington, D.C. 20594
(202) 314-6000
<http://www.nts.gov>

SMARTER
**(Skilled Motorcyclist Association-Responsible,
Trained and Educated Riders, Inc.)**
P.O. Box 121
Scottville, MI 49454-0121
<http://www.smarter-usa.org>

ThinkFirst National Injury Prevention Foundation
1801 N. Mill Street
Suite F
Naperville, IL 60563
(630) 961-1400
(800) THINK-56 (844-6556)
<http://www.thinkfirst.org>

**Transportation Research Board
The National Academies**
500 Fifth Street NW
Washington, D.C. 20001
(202) 334-2934
<http://www.trb.org>

**World Health Organization
Helmet Initiative**
<http://www.whohelmets.org/mhrc.htm>
info@whohelmets.org
Helmets: a road safety manual for decision-makers and
practitioners. Available at: [http://www.who.int/roadsafe-
ty/projects/manuals/helmet_manual/en/](http://www.who.int/roadsafety/projects/manuals/helmet_manual/en/)

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U.S. Department of Health and Human Services

Centers for Disease Control and Prevention

National Center for Injury Prevention and Control

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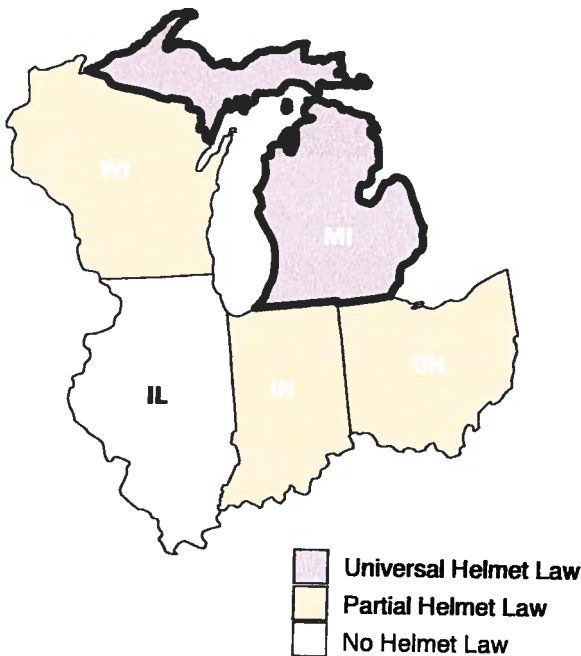
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PUBLIC HEALTH LEADERSHIP TO KEEP PEOPLE SAFE ON THE ROAD — EVERY DAY

MICHIGAN

SAVE LIVES, SAVE MONEY

HOW DOES YOUR STATE MEASURE UP?



Michigan ranks #20 in the nation for lives saved and #18 in the nation for money saved due to helmet use.

REGIONAL COMPARISON OF HELMET LAW IMPACT

State	Type of Law/ Year Enacted	Lives saved by helmet use per 100,000 registered motorcycles, 2008 ^{1,2}	Dollars saved by helmet use per 100,000 registered motorcycles, 2008 ^{1,2}
Illinois	□ /1970	6	\$10M
Indiana	□ /1984	9	\$14M
Michigan	■ /1969	25	\$43M
Ohio	□ /1978	10	\$16M
Wisconsin	□ /1978	4	\$6M

A NATIONAL PERSPECTIVE

	Lives saved by helmet use per 100,000 registered motorcycles, 2008 ^{1,2}		Dollars saved by helmet use per 100,000 registered motorcycles, 2008 ^{1,2}
Average number of lives saved for states with a Universal Law	40	Average money saved for states with a Universal Law	\$66 million
Average number of lives saved for states with a Partial Law	14	Average money saved for states with a Partial Law	\$23 million
Average number of lives saved for states with no law	6	Average money saved for states with no law	\$10 million

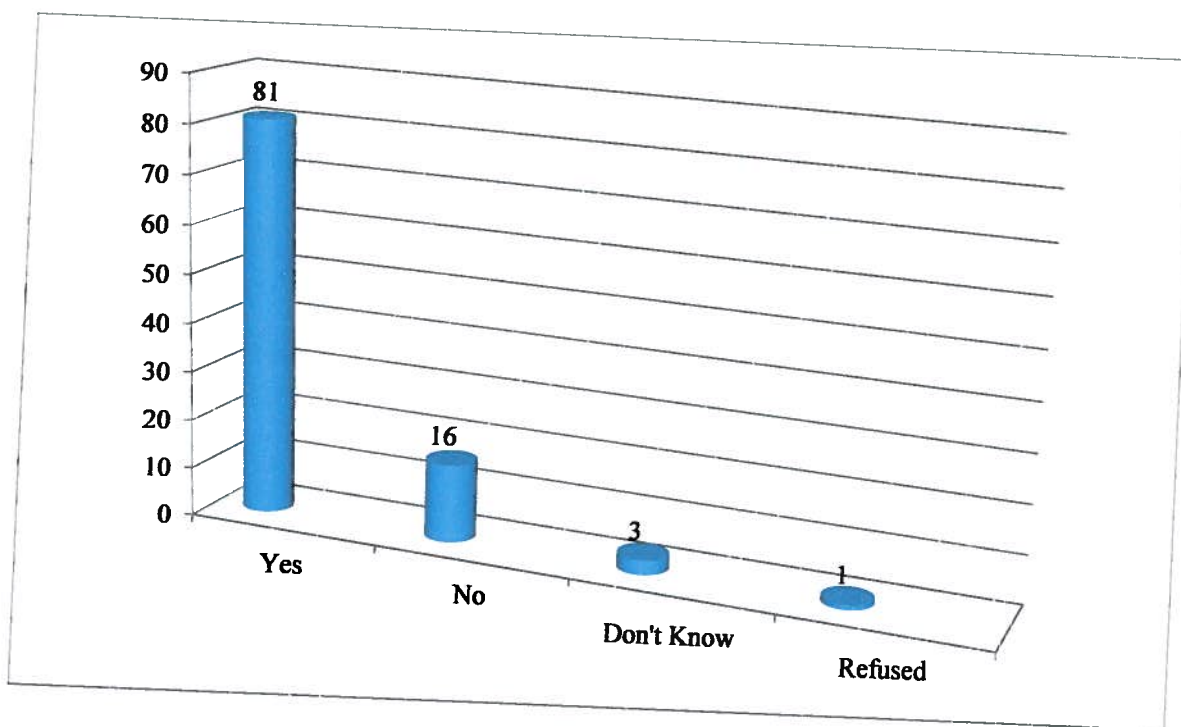
WHAT CAN MICHIGAN DO?

- ✓ **Protect your universal helmet law.**
Keep in mind that public support is high for helmet laws, averaging 84% in states like yours with a universal law.

1. National Highway Traffic Safety Administration. Determining lives and costs saved and injuries prevented by motorcycle helmets. Washington (DC): National Highway Traffic Safety Administration, U.S. Department of Transportation; 2011.
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**MICHIGAN LIKELY VOTERS EXPRESS OPINION
ON
LIFE-SAVING MOTORCYCLE HELMET LAW**
(March, 2011)

In your opinion, should motorcycle riders be required to wear helmets?



A recent survey of likely Michigan voters found an overwhelming 81 % believe that motorcycle riders should be required to wear helmets.

The 2011 Spring Marketing Resource Group Michigan Poll was conducted the week of March 14, 2011. Marketing Resource Group is a Lansing, MI based communications firm.

The survey is random sample of 600 likely Michigan voters stratified by voter turnout in past statewide elections and has a statistical margin of error of plus or minus 4.1 percent or less within a 95 percent degree of confidence.

These results are consistent with previous national and state findings which indicate the general public believes an all-rider motorcycle helmet law is a good thing.

Motorcycle Helmets and Helmet Laws



THE FACTS

PART I

Part I consolidates the research supporting the use of motorcycle helmets and the role an all-rider helmet law plays in a comprehensive motorcyclist-safety program.

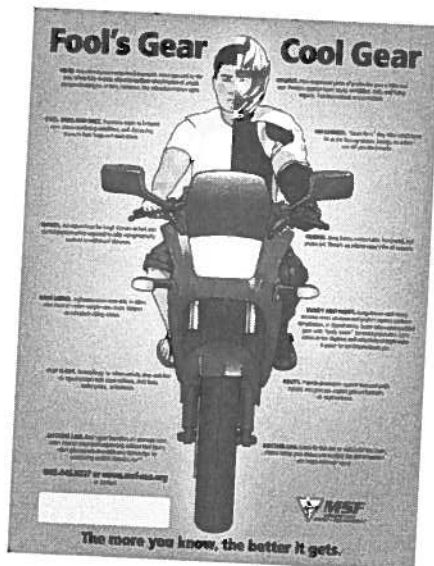


THE CLAIMS DEBUNKED

PART II

Part II provides factual information debunking the usual arguments put forth by anti-helmet and anti-helmet-law advocates.

In parts I and II, Michigan is used as an example for state-specific research. Similar state-specific information is available in most states.



THE CONCLUSIONS

PART III

Part III provides a quick summary of the information presented.

Motorcycle Helmets and Helmet Laws

INTRODUCTION:

This document was prepared by the Skilled Motorcyclist Association—Responsible, Trained & Educated Riders (SMARTER at www.smarter-usa.org) in April 2010.

PART I: THE FACTS

WORLDWIDE RESEARCH SUPPORTS HELMET USE AND HELMET-USE LAWS.

- All valid research clearly demonstrates the benefits of wearing a helmet. Motorcycle helmets save lives and prevent devastating and debilitating head injuries. Every reputable safety research organization in the world supports the use of helmets as a way to reduce injury, death, and economic costs resulting from brain trauma. The facts are not only clear but are undeniable.
- When a helmet law is in effect, nearly 100 percent of motorcyclists wear helmets. Mandatory helmet laws play a positive role in a comprehensive motorcyclist-safety program.
- Without helmet-use laws, or with laws that only cover a specific segment of the population, helmet use drops to between 28 and 40 percent. Laws covering only a specific segment of the population (young riders, for example) are extremely difficult to enforce.

STATE-BASED RESEARCH SUPPORTS HELMET USE.

- Two University of Michigan studies (*Trends in Motorcycle Crashes in Michigan: 1997–2002 and 2002–2005*, University of Michigan, Transportation Research Institute) confirm that the conclusion reached by all previous research holds true in Michigan as well: Wearing a helmet saves lives and prevents devastating and debilitating head injuries.

STATE TRAFFIC-SAFETY EXPERTS SUPPORT HELMET LAWS.

- In December of 2004, the Governor's Traffic Safety Advisory Committee adopted the State of Michigan Strategic Highway Safety Plan. The number-one strategy of the governor's highway safety plan as it pertains to motorcyclist safety is to "maintain helmet laws and enforce the use of FMVSS 218 compliant helmets."
- The number-one recommendation of the February 2005 Michigan Office of Highway Safety Planning Motorcycle Program Assessment as it pertains to the topic of motorcyclist personal protective equipment is to "maintain the current motorcycle helmet use law that covers all riders in support of a Governor's Traffic Safety Advisory Committee Strategy."
- The Michigan Motorcycle Safety Action Plan was completed in April 2006. This plan included the recommendations "Enforce the use of FMVSS 218 compliant helmets," within the enforcement section, and "Maintain helmet laws and the use of FMVSS 218 compliant helmets," within the legislative section.
- Michael L. Prince, Director of the Michigan Office of Highway Safety Planning, stated in part, in a June 2008 press release, "Based on analysis conducted by our office, if Michigan's mandatory motorcycle helmet law was to be repealed, the state should expect to see an annual increase of at least 30 fatalities, 127 incapacitating injuries and \$129 million in economic costs."

THE PUBLIC SUPPORTS HELMET LAWS.

- According to a motor vehicle occupant survey conducted by NHTSA in 2000, 81 percent of occupants reported that they favored mandatory helmet-use laws for motorcyclists. A 2004 report by the Advocates for Highway and Auto Safety found that an overwhelming majority (80 percent) of Americans were in favor of state laws requiring all motorcyclists to wear helmets. A 2005 survey by Lansing-based EPIC-MRA found that seven out of ten Michigan registered voters said motorcycle riders should be required to wear helmets.

CITIZENS SUPPORT SIMILAR SAFETY REGULATIONS.

- Michigan citizens support other nonintrusive safety regulations, regulations that enhance safety but do not intrude upon a citizen's privilege to participate in the activity, such as
 - **seat belts.** Secondary enforcement was enacted in 1985. Primary enforcement was enacted in 2000. A person not wearing a seat belt who sustains injuries in a motor-vehicle accident caused by another can be found to be comparatively negligent in a lawsuit, and the monetary damages otherwise entitled to be recovered are reduced proportionately.
 - **life preservers.** All vessels must be equipped with life preservers. Children under age 12 must wear a life preserver. All operators and passengers on personal watercrafts (PWCs) must wear a life preserver.
 - **hunter orange.** Individuals hunting with any device between August 15 and April 30 must wear hunter orange. Anyone (with specific exceptions) hunting during any season that allows the use of a firearm must wear hunter orange.

PUBLIC COSTS INCREASE WHEN UNHELMETED RIDERS SUSTAIN HEAD INJURIES.

- In a crash involving head impact, unhelmeted riders have higher health-care costs as a result of injuries they sustain as compared to helmeted riders. In November 2002, NHTSA reported that 25 studies of the costs of injuries from motorcycle crashes "consistently found that helmet use reduced the fatality rate, probability and severity of head injuries, cost of medical treatment, length of hospital stay, necessity for special medical treatments, and probability of long-term disability."
- A number of studies examined the question of who pays for medical costs. Only slightly more than half of motorcycle crash victims have private health insurance coverage. For patients without private insurance, the majority of medical costs are paid by the government.
- A study conducted in 2002 using records for patients admitted to the University of Michigan Health System (M.M. Brandt et al., *Hospital Cost Is Reduced by Motorcycle Helmet Use*) concluded that unhelmeted riders had a significantly increased incidence of head injuries but not other injuries and that hospitalization costs were decreased by more the \$6,000 per patient by the use of a helmet.

ADDITIONAL RESEARCH, REPORTS, AND MATERIALS

Additional research, reports, and materials are available on the Web site of the Skilled Motorcyclist Association—Responsible, Trained & Educated Riders (SMARTER at www.smarter-usa.org). Key information that is appropriate for presentations is available in downloadable files.

PART II: THE CLAIMS DEBUNKED

THE CLAIM: ALL MOTORCYCLISTS SUPPORT HELMET-LAW REPEAL.

ABATE of Michigan, the organization that actively lobbies to repeal or weaken Michigan's universal helmet law, claims to represent all Michigan motorcyclists (per a statement on the ABATE Web site as of April 1, 2010), when in fact they are a minority biker group of "approximately 4,000 members, the vast majority of whom are licensed motorcyclists in the State of Michigan" (per item 6, page 3, of a complaint filed in the Circuit Court for the County of Ingham, May 12, 2009, the text of which was posted on the Michigan ABATE Web site).

According to the Michigan Department of State, as of February 1, 2009, there were 533,005 motorcycle-license-endorsed Michigan residents. As of November 8, 2008, Michigan had 257,269 registered motorcycles; therefore, ABATE represents significantly less than 1 percent of Michigan's license-endorsed motorcyclists. It is likely that anti-helmet advocates in every state represent a very small percent of the licensed riders in that state.

THE CLAIM: IT IS NO ONE ELSE'S BUSINESS SO LET THE RIDER DECIDE.

Anti-helmet-law advocates claim that if they suffer a debilitating injury or are killed because they choose not to wear a helmet that it is only their individual problem and no one else is affected. If someone who is significant to you (a daughter, spouse, or parent) is killed or suffers a traumatic brain injury, do you think you will just shrug it off by saying, "Oh well, it was his/her choice"?

ABATE seems to consider the use of helmets by motorcyclists as a freedom-of-choice issue based on the American ideals of Truth and Liberty. The Constitution and the first ten amendments do not give individuals the "right to do as they please" to the detriment of other citizens. The state has a positive role in ensuring that all citizens have equal protection and justice under the law and equal opportunities to exercise the privileges of citizenship. Just as the rights of citizenship are balanced by responsibilities, such as voting and paying taxes, so too are its privileges. To enjoy the privilege of driving a car or riding a motorcycle, one must comply with certain requirements, among them being the nonintrusive requisite to buckle up or wear a helmet.

THE CLAIM: HELMET USE CAUSES INJURIES.

In an effort to garner support for their cause, biker groups opposed to wearing helmets perpetuate myths about helmet use. Myths imparting wrong information about helmets ignore the facts and impede the education of motorcycle riders. These are only some of the myths being perpetuated that are simply not true:

- "Helmets cause head injuries." *This is not true.*
- "Helmets prevent the rider from hearing traffic noise." *This is not true.*
- "Helmets reduce peripheral vision." *This is not true.*
- "Helmets cause heat exhaustion." *This is not true.*

THE CLAIM: HELMET LAWS COST TOURIST DOLLARS.

No government or independent, private research organization has completed research that supports the ABATE-perpetuated claim that our helmet law causes our state to lose tourist revenue. The claim that the all-rider helmet law costs our state tourist dollars originates from a March 2004 document entitled "Economic Impacts of Modification to Michigan Mandatory Helmet Law" that ABATE paid Michigan Consultants to write.

As it states, the argument used repeatedly in repeal attempts since the mid-1970s focused on the "rights" or "freedom of choice" of motorcycle operators, which failed every single time to outweigh the safety benefits of the helmet law. ABATE recognized a new argument was needed. A clever way to get legislators to consider weakening or repealing the lifesaving helmet law was to convince them that it costs the state money.

So ABATE contracted to have a report written that supported this claim and appeared scholarly. On the surface, it **appears** to be research. It is **not**. It was written with one end in mind: to convince legislators that Michigan's helmet law costs the state tourist dollars.

If it were true that helmet laws prevent riders from coming to Michigan, how is it possible that Muskegon, Michigan, is host to what has been dubbed as "America's fastest growing bike event"? 2010 will be the fourth annual Muskegon Bike Time.

THE CLAIM: HELMET LAWS DO NOT WORK.

ABATE representatives regularly make statements like "Michigan is the only state in the region with a helmet law, and Michigan has more deaths than states without helmet laws. Wisconsin, Illinois, Indiana, and Ohio do not have helmet laws, and they have fewer deaths." First, this statement is made as a statement of truth. It is not true. In 2006, Ohio had 44 more deaths in motorcycle crashes than Michigan did and Illinois had 18 more deaths. There were 93 deaths in Wisconsin and 110 in Indiana, compared to 114 in Michigan. So, the statement made as fact is only partially true.

Second, the statement is made as if it proves helmet laws are not effective. Comparing one state to another in a given year is not valid research. To say that "in 2006 Indiana had fewer deaths in motorcycle crashes than Michigan (a statement of fact/truth) and Indiana does not have a helmet law and Michigan does (another statement of fact/truth), therefore helmet laws are not effective in reducing deaths" is to make a highly erroneous conclusion that does not consider the hundreds—maybe thousands—of variables that more likely account for this difference.

Other variables that may contribute include the facts that in 2006 Indiana had 100,444 fewer registered motorcycles and approximately 3.5 million fewer residents than Michigan. In 2006 Indiana also had more interstate highway miles (known to be the safest to travel) than Michigan. "Wisconsin has fewer deaths in motorcycle crashes than Michigan and Wisconsin has more cows, therefore cows reduce death by motorcycle crashes" is obviously a ridiculous similar statement; however, it is just as valid as the claim that Wisconsin has fewer motorcyclist fatalities because Wisconsin does not have a helmet law. In better terms, neither statement has any validity.

THE CLAIM: RIDERS TAKE MORE RISKS WHEN THEY WEAR A HELMET.

The idea that people increase their risk-taking behavior when risk-reduction measures are in place (a theory called risk homeostasis in the literature) has been debated since the early 1980s. The main proponent of the theory is Gerald Wilde (search his name and the topic to find information). A good and short other side of the story is found on pages 299–300 in the book *Traffic Safety and the Driver*, by Leonard Evans. Evans says:

The tone of advocacy for the claim has been largely philosophical, metaphysical, and theological in nature, unencumbered by the standards, methods, or norms of science, and at times happily abandoning the rigors of Aristotelian logic and the multiplication table. One can but marvel the repeated claims so clearly devoid of face validity have been debunked in such respectful tones by so many of us.

The argument that riders who wear helmets take more risks clearly ignores the fact that there is no research to support the theory of risk homeostasis in general, much less to support this specific claim. Logic tells us the more likely scenario is just the opposite: that is, riders who choose to wear a helmet also make other decisions to reduce the risks associated with riding.

PART III: THE CONCLUSIONS

THE CONCLUSIONS ARE IRREFUTABLE:

1. The research is clear, overwhelming, and undeniable. Every reputable safety research organization in the world supports the use of helmets.
2. Repealing a helmet law will reduce the number of riders who wear helmets from 98–99 percent to approximately 30–40 percent.
3. Repealing a helmet law will result in increased deaths and injuries.
4. All the arguments against helmets and helmet laws have major flaws.
5. Repealing a helmet law would enact legislation opposed by the majority.
6. Repealing or weakening a mandatory helmet law would be a major step backward, a “slap in the face” to state safety experts, and would cut a huge hole in the state’s overall traffic-safety program. It makes logical sense to support the position taken by the state’s paid experts.
7. Repealing a helmet law will increase medical costs and will cause a related tax burden due to long-term care of injured motorcyclists.
8. Repealing a helmet law would be action that is inconsistent with other legislation. It is not fair or logical to repeal a nonintrusive safety requirement for motorcyclists and not provide the same opportunity for automobile drivers to go without seat belts, boaters without life preservers, or hunters without hunter orange. Such action could be considered discriminatory and biased.
9. Governments have a responsibility to support citizen-safety efforts.
10. The helmet issue is NOT a simple “it only affects me” or a simple “freedom of choice” issue. It is part of a much more complicated citizen-safety effort, and our best effort must include a mandatory helmet law covering all riders.

For additional research and information supporting the use of motorcycle helmets and about the important role of an all-rider helmet law in a comprehensive motorcyclist-safety program, visit the Web site of the Skilled Motorcyclist Association–Responsible, Trained & Educated Riders (SMARTER):

www.smarter-usa.org